

## **CDF Controlled Access Procedure**

( this is a Safety Procedure )

This procedure details the steps to be followed in a Controlled Access into the CDF Collision Hall during Collider Runs.

Editorial Hand-Processed Changes Other Than Spelling  
Require CDF Operations Dept Co-Heads Approval

HPC Number	Date	Section Number	Initials
1.	_____	_____	_____
2.	_____	_____	_____
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Approvals:

\_\_\_\_\_  
(CDF Operations Dept Co-Heads)

\_\_\_\_\_  
(Date)

\_\_\_\_\_  
( Beams Division RSO

**1.0 Controlled Copies of this procedure.**

Four controlled copies of this (CDF-II – 8) procedure will exist.

One will be held in the CDF Operations Department Office Library.

One will be in the CDF Control Room.

One will be in the MCR.

The others will be on the CDF web page at  
<http://www-cdf.fnal.gov/cdfsafecdfproclist.html>

All other copies will be marked, " INFORMATIONAL COPY ONLY "

## **2.0 The Controlled Access Procedure**

The CDF Operations Manager or Safety Coordinator is responsible for proper execution of this procedure.

**NOTE:** A "Work Party" consists of a minimum of two people.

**NOTE:** CDF is limited to a total of 8 individuals in the Collision Hall during a Controlled Access.  
( One key must be left in the Key Tree for emergency access. )

**NOTE:** All individuals in working parties should have current  
Radiological Worker Training  
LOTO I or II  
CDF Supervised Access Training  
Controlled Access Training.  
Visitors or untrained personnel may be escorted according to the rules in the Fermilab Controlled Access Handout.

**NOTE:** The general policy is that a Controlled Access should be "short".  
If more than about 4 hours of access are anticipated, the  
CDF Operations Manager should contact the Beams  
Run Coordinator for approval to secure to "Supervised Access" .

The procedure steps begin on the next page.

1. The CDF Operations Manager must secure approval for the access from the Beams Run Coordinator.
2. The CDF Operations Manager must approve all work parties and tasks.
3. The CDF Operations Manager or Safety Coordinator must provide the MCR with a list of all individuals who will be making the Controlled Access .
4. The Operations Manager or Safety Coordinator must confirm the start of the Controlled Access with the MCR.
5. The CDF Operations Manager must decide if the Solenoid is to be turned off during the access. If the Solenoid is to be turned off, the Operations Manager must inform the Process Systems Tech. The Process Systems Tech will then power down the Solenoid. When the Solenoid is powered down, the Process Systems Tech will notify the Operations Manager.
6. The Operations Manager turns off the four recirculation fans in the Collision Hall

using IFIX.

7. Work parties must report to the CDF Control Room. The Operations Manager or Safety Coordinator must:

- 7.1. Check the Controlled Access Training status of all individuals who will be making the Controlled Access.

- 7.2. Check out an LSM to each work party.

- 7.3. Obtain grating key for under Central Detector **if needed**.

- 7.4. Check that each individual has a TLD badge.

- 7.5. **Caution each work party to follow all beams procedures for a controlled access.**

- 7.6. Remind the work parties that they are responsible for:

- a. the required beam off radiation survey in the area where their party is working.
    - b. proper observation of all safety regulations.
    - c. informing their work party of the power state and associated magnetic hazards of the Solenoid.
    - d. If exposure rates exceeding 20 mR per hour are encountered during an access, personnel must leave the enclosure using the normal controlled access procedure and inform the MCR and CDF Operations Manager or the CDF Safety Coordinator.
    - e. Items removed from the collision hall must be checked for radioactivity.
    - f. Personnel must frisk themselves upon leaving the collision hall.
  - g. The following work is **NOT** permitted without an approved Radiation Work Permit:
    - cutting, grinding, or welding
    - work on beamline magnet interfaces or beam pipes
    - work in posted contamination areas or high radiation areas

8. Work parties proceed to the Controlled Access Key Tree and call MCR. A key is issued to each person making an access.

9. When work is completed, each individual returns his/her key to the Key Tree.

10. Work parties return to the CDF Control Room to return LSM and to report status of their work.

11. Repeat steps 7 through 10 as required for each additional work party.

12. When the last work party is finished, the Operations Manager checks to see if

the Solenoid can be powered. If it can, he/she contacts the Process Systems Tech to power the Solenoid.

13. The Operations Manager turns on the recirculation fans in the Collision Hall using IFIX.
14. The Operations Manager or Safety Coordinator contact the MCR to confirm the CDF Collision Hall Access is complete.

### **3.0 Checklists**

No checklist is required.

#### **4.0 Deviations**

Minor deviations that do not effect safety are allowed with the approval of the CDF Operations Department Co-Heads.

#### **4.1 Departure from Proper Procedure**

If there is a departure from the controlled access procedure during the access (for example, someone has entered the collision hall without a key), THEN the CDF Operations Manager or CDF Safety Coordinator must do the following:

- a. Drop the collision hall interlocks by opening the controlled access door.
- b. Inform the following people:
  - Particle Physics Division Radiation Safety Officer
  - Beams Division Radiation Safety Officer
  - Main Control Room Crew Chief
- c. Prepare a written account of the situation.
- d. Await instructions from the Beams Division RSO.

NOTE: The Beams Division RSO will discuss the situation with the Beams Division and Particle Physics Division Heads

**5.0 Required Training and Authorized Training Personnel.****Prerequisite Training:**

All Controlled Access personnel must have:

- a) Radiological Worker Safety Training
- b) CDF Supervised Access Training
- c) LOTO I or LOTO II Training
- d) Fermilab Controlled Access Training

**LIST OF AUTHORIZED INSTRUCTORS FOR CDF CONTROLLED ACCESS  
PROCEDURE**

<u>Name</u>	<u>I.D.#</u>
Hahn, Adrienne	07152N
Hahn, Stephen	08372N
Benjamin, Douglas	13089N
Burkett, Kevin	13090N

## **6.0 Training Materials.**

For individuals receiving CDF Controlled Access Procedure Training:  
This document.

**7.0 List of Trained People for this procedure.**

The CDF Operations Managers and Controlled Access Coordinator are the only people trained in this procedure.

Name	Date

## **8.0 References and Supporting Documentation.**

Fermilab Controlled Access Handout  
Fermilab Controlled Access Video Course FN000311  
Fermilab Controlled Access Quiz